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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,766	12/18/2000	Norman R. Pelton	P398 0001	4845

720 7590 11/14/2002

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EXAMINER

VALENTI, ANDREA M

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 11/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/738,766

Applicant(s)

PELTON, NORMAN R.

Examiner

Andrea M. Valenti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-14 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14 and 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

PETER M. POON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

*PmP*

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one page, in view of U.S. Patent No. 3,990,180 to Bunting.

Regarding Claim 1, Van der Knaap's trademark product Fibre Neth teaches a network of thermal-sensitive fibre used as a plant growing medium. Van der Knaap's does not explicitly state a cylindrical plug of growing medium including a tree seedling with roots. However, Bunting teaches that it is old and notoriously well-known in the art to provide trees and young plants with a plant substrate plug medium (Bunting Col. 1 line 5-13). It would have been obvious to one of ordinary skill in the art to shape the growing medium of Van der Knaap's into a seedling plug since the modification is merely the selection of a known material for intended use selected for its known hydration characteristics.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, as applied to claim 1 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claim 2, Van der Knaap teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Claims 3, 5, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, as applied to claim 1 above, and further in view of U.S. Patent No. 5,331,908 to Loeb.

Regarding Claims 3 and 5, Van der Knaap's trademark product Fibre Neth teaches a cylindrical plug of growing medium, which is a network of thermal-sensitive fibre and inherently includes a tree seedling with roots, but is silent on a second plug surrounding the first plug. However, Loeb teaches a second cylindrical plug of a second

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growing medium surrounding the first cylindrical plug (Loeb Col. 4 line 5-10) Fig. 1 #16 and Fig. 2 #17) and the second growing medium has a loose growing soil mixture of peat moss and sawdust (Loeb Col. 1 line 44-48). It would have been obvious to one of ordinary skill in the art to transplant the plug of Van der Knaap's into a second plug as taught by Loeb since it is old and well-known method in the art of plant propagation to increase the size of the root containment area as the seedling grows and also to provide additional nutrient properties and protection to the plant root system.

Regarding Claim 20, Van der Knaap B.V. as modified is silent on the second plug having thermal-sensitive fibre. However, it would have been obvious to one of ordinary skill in the art to modify the teaching since the modification is merely duplicating the growing medium selection and does not present a patentably distinct limitation.

Claims 4, 7, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth as applied to claim 3, 5, and 20 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claims 4, 7, and 21, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the

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production of Fibre Neth in order to obtain the required absorbent properties for the growing medium to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Des. 325,714 to Karhiniemi in view of Van der Knaap B.V. Fibre Neth.

Regarding Claim 6, Karhiniemi teaches a tray for growing seedlings in which the application of the tray inherently performs the conventional method of forming a seedling plug by filling a hollow cell with a growing medium planting a tree seed in the hollow cell; germinating the seed into a seedling and nurturing the seedling to provide root development; after sufficient root development the of the seedling, ejecting the seedling and growing medium to form a plug. Karhiniemi is silent on the type of growing medium that is placed in the cells of the tray and that the growing medium has a network of thermal-sensitive fibre. However, Van der Knaap discloses a thermal-sensitive fibre growing medium. It would have been obvious to one of ordinary skill in the art to apply the growing medium taught by Van der Knaap to the growing cells of Karhiniemi in order to provide long-lasting even hydration of the seed and seedling thus maximizing germination and plant growth rate.

Claims 8, 9, 12-14, and 22-25, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Des. 325,714 to Karhiniemi as applied to claim 6 above, and further in view of U.S. Patent No. 5,331,908 to Loeb.

Regarding Claims 8 and 9, Karhiniemi as modified is silent on transplanting the first cylindrical plug into a hollow cell with a growing medium wherein the growing medium has a network of thermal-sensitive fibre; after sufficient root development of the seedling, ejecting the seedling and growing medium to form the seedling plug. However, Loeb teaches that method of transplanting a first plug into a second plug (Loeb Col. 4). It would have been obvious to one of ordinary skill in the art to modify the conventional plug method applicable to Karhiniemi to include a second plug layer of thermal-sensitive fibre since this modification is merely a duplication of steps that perform the same intended function of promoting the growth and development of the seedling. It is old and well-known in the art of plant propagation to increase the size of the root containment area as the seedling grows and also to provide additional nutrient properties and protection to the plant root system.

Regarding Claim 12, Karhiniemi as modified by Loeb teaches that the second growing medium can also be a loose growing soil mixture of peat moss and sawdust (Loeb Col. 1 line 45-48).

Regarding Claims 13, 22, and 24, Karhiniemi as modified teaches the growing medium has a network of Fibre-neth formed by filling a tray of hollow cells with the growing medium, but is silent on dipping the tray in a bath of hot water at a temperature of approximately 89 degrees Celsius, and then dipping the tray in a bath of water at tap

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water temperature, 5 to 10 degrees Celsius. However, it would have been obvious to one of ordinary skill in the art to dip the growing medium in hot water, approximately 89 degrees Celsius, since heat treatment is an old and well-known means to kill unwanted bacteria and micro-organisms and cooling the tray with tap water brings the soil temperature back to a level favorable for growing conditions.

Regarding Claims 14, 23, and 25, Karhiniemi as modified is silent on alternatively cascading water onto the tray to heat and cool the growing medium. However, it would have been obvious to one of ordinary skill in the art to apply cascading water to the growing seedlings since is an old and well-known method of humidity control in plant husbandry.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth as applied to claim 8 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claim 10, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to provide long-lasting even hydration of the seed and seedling to



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maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-10, 12-14, and 20-25 have been considered but are moot in view of the new ground(s) of rejection.

Examiner maintains that Fibre Neth pre-dated applicant's filing date since it has a trademark application date in 1997 and that it is an inherently known plug used as a cultivation and rooting medium. However, examiner has supplemented this reference with an additional reference to further substantiate the date, additionally cited prior art abstract journal article *Substrate Research for Roses: Evaluation of Different Types of Coir* published in 1999.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

German Patent DE 1949462 and Europe Patent EPO 0117766

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-306-4195 for regular communications and 703-305-0285 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4357.

AMV  
November 11, 2002

  
PETER M. POON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600